



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/520,463	10/07/2005	Agostino Di Trapani	Q85687	5533
23373 7590 12/19/2006 SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037			EXAMINER FONSECA, JESSIE T	
			ART UNIT 3637	PAPER NUMBER

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	12/19/2006	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/520,463

Applicant(s)

DI TRAPANI, AGOSTINO

Examiner

Jessie Fonseca

Art Unit

3637

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 07 January 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 20-37 is/are pending in the application.
- 4a) Of the above claim(s) 25, 30-34, 37 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 20-24, 26-29, 35, and 36 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 January 2005 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

Claims 20-24, 26-29, 35 and 36 have been examined.

#### ***Election/Restrictions***

Applicant's election without traverse of Species I in the reply filed on 11/15/06 is acknowledged.

Claims 25, 30-34, and 37 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species II, III, and IV, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 11/15/06.

Upon further examination of the claims, the examiner agrees with the applicant that at least claim 20 is generic.

#### ***Information Disclosure Statement***

The information disclosure statement filed 01/07/2005 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document; each non-patent literature publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the information referred to therein has not been considered.

#### ***Drawings***

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: 4c and 4b (figures 1, 2, and 3). Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 22, 23, 24, 26, 35, and 36 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 22 recites the limitation "tolerance" in line 3 of the claim. There is insufficient antecedent basis for this limitation in the claim.

With regards to claim 23, it's improper to recite the structure of the construction element in terms of the binder when the binder is not part of the claims.

With regards to claim 24, it's unclear whether the claim is directed to a construction element or plurality of construction elements. It's indefinite to recite the structure of the construction element in terms of another construction element when the claim is for a single construction element.

With regards to claim 26, it's unclear whether the claim is directed to a construction element or plurality of construction elements. It's indefinite to recite the structure of the construction element in terms of another construction element when the claim is for a single construction element. Furthermore, claim 26 recites the limitation "standard height" in line 3 of the claim. The limitation "standard height" renders the claim indefinite, as it is unclear what "standard" means because "standard" could include a number of different sizes, configurations, or properties. Furthermore, it is unclear if the applicant is claiming a combination of the present invention with the "lintels" and "masonry beneath ceilings". If the application's intention was to claim a combination, the claims should be amended to clearly convey that. For the purpose of examination, the examiner will consider the present invention; the "interior lintels" and "stretches of masonry" are given little patentable weight.

With regards to claim 27, it's unclear whether the claim is directed to a construction element or plurality of construction elements. It's indefinite to recite the structure of the construction element in terms of another construction element when the claim is for a single construction element. The limitation "standard height" renders the

Art Unit: 3637

claim indefinite, as it is unclear what "standard" means because "standard" could include a number of different sizes, configurations, or properties. Furthermore, it is unclear if the applicant is claiming a combination of the present invention with the "lintels" and "masonry beneath ceilings". If the application's intention was to claim a combination, the claims should be amended to clearly convey that. For the purpose of examination, the examiner will consider the present invention; the "interior lintels" and "stretches of masonry" are given little patentable weight.

With regards to claim 35, it is unclear how a wall can be constructed with construction element. It appears the claim should be directed toward a plurality of construction elements. Furthermore, it is unclear to what the significance of the term "thin joints" in line 2 of the claim is, that it has to be placed in quotation marks.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Komasara et al. (US 6,240,693).

Komasara et al. discloses construction element comprising:

An upper face (L), lower face (K), and lateral faces (M, N, O) where the construction element (J) comprises at least one groove or mortise (36'), capable of

Art Unit: 3637

having the application by grading a binder needed for the assembly of construction elements to one another. The mortise (36') extending over the upper face (L) of the construction element (J), where the construction element (J) comprises at least one protuberance or tenon (32'), which extends over the lower face (K) of the construction element. The mortise (36') is arranged in such a way to correspond with a tenon (32') of the similar construction element (J) so as to allow for the assembly of two construction elements (J). The mortise (36') is associated with a load-bearing wall (I) of the construction element (J) and is arranged a distance from the outer lateral edge (P) of the construction element (J). All the limitations regarding the binder has little patentable weight, as the binder relates to an intended use with a construction element as recited, "The distance of mortise being arranged from the outer lateral edge of the construction element, which is sufficient to prevent the overflow of binder beyond the edge of the element during assembly, characterized in that the mortise and the tenon are dimensioned in such a way as to allow, during the assembly of two elements, for a partial embedding such as will allow for a strip of binder to be formed between the upper face and the lower face of the elements, the sole contact between the two superimposed elements therefore being by way of this strip so as to allow for an adjustment of the alignment, of the height, and of the plumb alignment of the elements which are to be assembled."

With regards to claim 22, Komasara et al. further discloses the depth of the mortise (36') and the height of the tenon (32') being approximately equal. The tolerance

Art Unit: 3637

will inherently be proportional to the depth of the mortise (36') and height of the tenon (32'), which is to be accommodated with the construction element (J).

With regards to claim 23, the ratio of the weight of the construction element (J) to the surface area of the small base of the trapezoidal of the tenon (32') will inherently be inversely proportional to the fluidity of the binder placed between two construction elements (J), so as to allow for proper alignment of the assembly.

With regards to claim 24, Komasara et al. discloses the width of the mortise (36') being less than the thickness of the load-bearing wall (I) or partition of the construction element (J) on which the mortise is placed.

With regards to claim 29, Komasara et al. further discloses a mortise (36') that is designed to accommodate equally a simple or straddle fitting (col. 9, lines 40-52).

With regards to claim 35, Komasara et al. discloses a wall constructed with a plurality of construction elements (J), where the wall is constructed with "thin joints" between the construction elements (figure 1) (col. 9; lines 40-52).

With regards to claim 36, Komasara et al. further discloses a wall that comprises the assembly of the construction elements (J), where each construction assembly comprises at least two preassembled construction elements (J) (col. 9, lines 40-52).



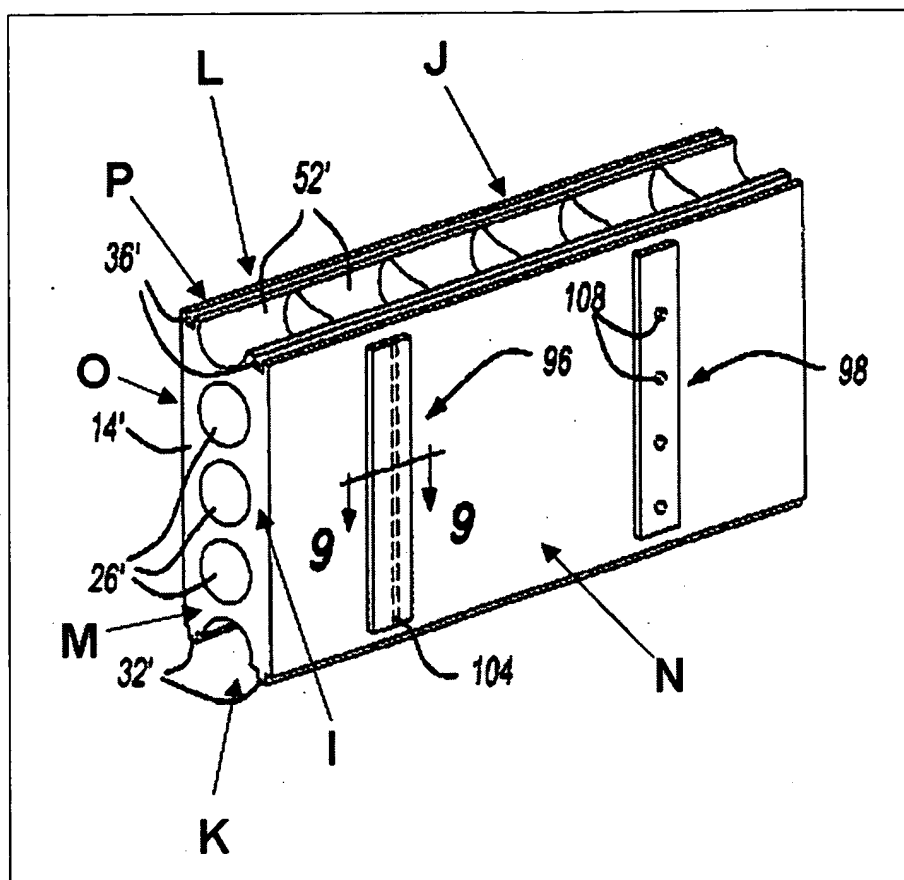


Figure 8: Komasa et al. (US 6,240,693)

Claims 20-23, 29, 35-36 are rejected under 35 U.S.C. 102(b) as being anticipated by Roberts (US 822,078).

**Roberts discloses construction element comprising:**

An upper face (B), lower face (A), and lateral faces (C, D, E) where the construction element (F) comprises at least one groove or mortise (4), capable of having the application by grading a binder needed for the assembly of construction elements to one another. The mortise (4) extending over the upper face (B) of the

Art Unit: 3637

construction element (F), where the construction element (F) comprises at least one protuberance or tenon (3), which extends over the lower face (A) of the construction element. The mortise (4) is arranged in such a way to correspond with a tenon (10) of the similar construction element (F) so as to allow for the assembly of two construction elements (F). The mortise (4) is associated with a load-bearing wall (G) of the construction element (F) and is arranged a distance from the outer lateral edge (H) of the construction element (F). All the limitations regarding the binder has little patentable weight, as the binder relates to an intended use with a construction element as recited, "The distance of mortise being arranged from the outer lateral edge of the construction element, which is sufficient to prevent the overflow of binder beyond the edge of the element during assembly, characterized in that the mortise and the tenon are dimensioned in such a way as to allow, during the assembly of two elements, for a partial embedding such as will allow for a strip of binder to be formed between the upper face and the lower face of the elements, the sole contact between the two superimposed elements therefore being by way of this strip so as to allow for an adjustment of the alignment, of the height, and of the plumb alignment of the elements which are to be assembled."

With regards to claim 22, Roberts further discloses the depth of the mortise (4) and the height of the tenon (3) being approximately equal. The tolerance will inherently be proportional to the depth of the mortise (4) and height of the tenon (3), which is to be accommodated with the construction element (F).

With regards to claim 23, The ratio of the weight of the construction element (F) to the surface area of the small base of the trapezoidal of the tenon (6) will inherently be inversely proportional to the fluidity of the binder placed between two construction elements (F), so as to allow for proper alignment of the assembly.

With regards to claim 29, Roberts further discloses a mortise (4) that is designed to accommodate equally a simple or straddle fitting (figure 1).

With regards to claim 35, Roberts discloses a wall constructed with a plurality of construction elements (F), where the wall is constructed with “thin joints” between the construction elements (figure 1).

With regards to claim 36, Roberts further discloses a wall that comprises the assembly of the construction elements (F), where each construction assembly comprises at least two preassembled construction elements (F).

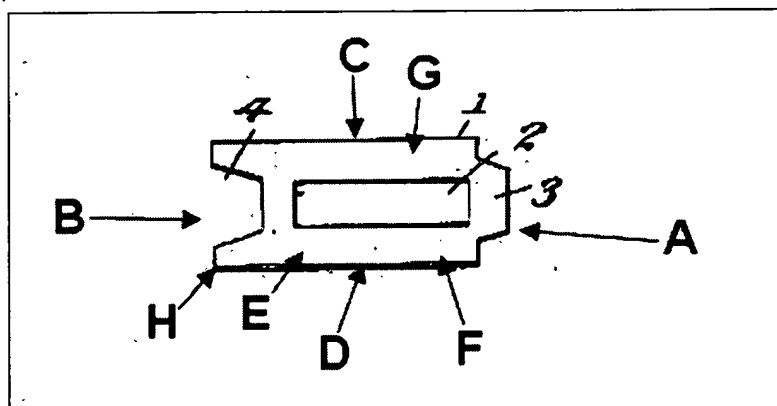


Figure 3: Roberts (US 822,078)

Art Unit: 3637

Claims 24 and 28 rejected under 35 U.S.C. 103(a) as being unpatentable over Roberts (US 822,078) and Komasara et al. (US 6,240,693).

Roberts fails to disclose the width of the mortise being less than the thickness of the load-bearing wall or partition of the construction element on which the mortise is placed. However, Komasara et al. discloses a mortise (36') having a width less than the thickness of the load-bearing wall (I) of the construction element (J) on which the mortise (36') is placed. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the construction element of Robert to have a mortise with a width less than the thickness of the load-bearing wall of the construction element on which the mortise is placed as taught by Komasara et al, so as to for sufficient space along the face to prevent the overflow of binder beyond the edge of the construction element during assembly

With regards to claim 28, Roberts fails to disclose a mortise being arranged above each of the load bearing walls of the construction elements. However, Komasara et al. discloses a mortise (36') being arranged above each of the load bearing walls (I) of the construction elements (J). It would have been obvious to one of ordinary skill in the art at the time of invention to modify the construction element of Roberts to have the mortise being arranged above each of the load bearing walls as taught by Komasara et al. so as to allow for a construction element with increased structural integrity for when additional construction elements are placed upon the mortise.

Claims 26-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Roberts (US 822,078) and Huberty (US 2002/0038532 A1).

Roberts discloses a construction element having a height that is dimensioned in such way that an assembly in height of the construction elements is capable of forming a "standard" height beneath interior lintels and stretches of masonry beneath ceilings. In addition, Roberts discloses that the height of the element is greater than or equal to its length. Roberts fails to disclose the weight of the construction element being less than or equal to 25 kg. However, Huberty discloses a building construction element (5) having a weight less than 25g. Huberty discloses the weight of the construction element to be 4 kg and 8.5 kg (pg. 5, paragraph 79). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the construction element of Roberts to have weight less 25 kg as taught by Huberty in order to provide a construction element that is light in weight for ease of transport and handling.

With regards to claim 27, For the purpose of examination, the examiner considers the "interior lintels" and "stretches of masonry" as a subcombination. Roberts discloses a construction element having a height that is dimensioned in such way that an assembly in height of the construction elements is capable of forming a "standard" height beneath interior lintels. In addition, Roberts discloses that the height of the element is greater than or equal to its length. Roberts fails to disclose the weight of the construction element being less than or equal to 25 kg. However, Huberty discloses a building construction element (5) having a weight less than 25 kg. Huberty discloses the weight of the construction element to be 4 kg and 8.5 kg (pg. 5, paragraph 79). It

Art Unit: 3637

would have been obvious to one of ordinary skill in the art at the time of the invention to modify the construction element of Roberts to have weight less 25 kg as taught by Huberty in order to provide a construction element that is light in weight for ease of transport and handling.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Steiger discloses a building brick having a trapezoidal tenon and mortise (US 468,838)

Brooke discloses a cement building block having two mortises and two tenons (US 800,067)

Torrecelli discloses a concrete building block having tenon and mortise, where a binder is used in the assembly of construction blocks (US 1,592,476).

Kleinfeldt disclose a construction block having a tenon and mortise, where a binder is disposed within the mortise (US 1,667,160).

Breaky discloses a building brick have tenons, mortises, apertures, and load-bearing walls (US 2,162,417).

Stewart, JR discloses an interlocking building block having two mortises, two tenons, apertures, load-bearing walls, and partitions (US 3,422,588).

Freeman discloses a construction beam haviing two trapezoidal tenons and two trapezoidal mortises (US 4,304,080).

Bender discloses a construction block having a plurality of mortises and tenons (US 4,860,505).

Hull discloses a masonry block for retaining and freestanding walls have a mortise, tenon, load-bearing wall, and an aperture (US 6,152,655).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jessie Fonseca whose telephone number is (571)272-7195. The examiner can normally be reached on M-F 8:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lanna Mai can be reached on (571)272-6867. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JF JF  
12/07/06

LANNA MAI  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 3600

